## MMBD4448

Silicon Epitaxial Planar Switching Diode

## Features

- Fast switching speed
- High Conductance


Marking Code: 5D
TO-236 Plastic Package
Applications

- For general purpose switching

Absolute Maximum Ratings ( $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$ )

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Peak Reverse Voltage | $\mathrm{V}_{\mathrm{RM}}$ | 100 | V |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 75 | V |
| Average Rectified Forward Current | $\mathrm{I}_{\mathrm{F}(\mathrm{AV})}$ | 250 | mA |
| Forward Continuous Current | $\mathrm{I}_{\mathrm{FM}}$ | 500 | mA |
| Non-repetitive Peak Forward Surge Current at $=1 \mathrm{~s}$ |  |  |  |
|  | $\mathrm{I}_{\mathrm{FSM}}$ | 2 | A |
| Power Dissipation $\mathrm{at}=1 \mu \mathrm{~s}$ | $\mathrm{P}_{\mathrm{d}}$ | 350 | mW |
| Junction and Storage Temperature Range | $\mathrm{T}_{\mathrm{j}}, \mathrm{T}_{\mathrm{stg}}$ | -65 to +150 | ${ }^{\circ} \mathrm{C}$ |

Characteristics at $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$

| Parameter | Symbol | Min. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Forward Voltage } \\ & \text { at } I_{F}=5 \mathrm{~mA} \\ & \text { at } I_{F}=10 \mathrm{~mA} \\ & \text { at } I_{F}=100 \mathrm{~mA} \\ & \text { at } I_{F}=150 \mathrm{~mA} \end{aligned}$ | $V_{F}$ | $\begin{gathered} 0.62 \\ - \\ - \\ - \end{gathered}$ | $\begin{gathered} 0.72 \\ 0.855 \\ 1 \\ 1.25 \end{gathered}$ | V |
| $\begin{aligned} & \text { Reverse Current } \\ & \text { at } \mathrm{V}_{R}=20 \mathrm{~V} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=75 \mathrm{~V} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=25 \mathrm{~V}, \mathrm{~T}_{\mathrm{j}}=150^{\circ} \mathrm{C} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=75 \mathrm{~V}, \mathrm{~T}_{\mathrm{j}}=150^{\circ} \mathrm{C} \end{aligned}$ | $\mathrm{I}_{\mathrm{R}}$ |  | $\begin{aligned} & 25 \\ & 2.5 \\ & 30 \\ & 50 \end{aligned}$ | nA $\mu \mathrm{A}$ $\mu \mathrm{A}$ $\mu \mathrm{A}$ |
| Junction Capacitance at $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\mathrm{j}}$ | - | 4 | pF |
| Reverse Recovery Time at $I_{F}=I_{R}=10 \mathrm{~mA}, I_{r r}=0.1 \mathrm{XI} \mathrm{I}_{\mathrm{R}}, \mathrm{R}_{\mathrm{L}}=100 \Omega$ | $\mathrm{t}_{\mathrm{rr}}$ | - | 4 | ns |

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